

CLAIMS

Therefore, having thus described the invention, at least the following is claimed:

- 1 1. An effervescent compound comprising:
2 a liquid ingredient in an amount of up to approximately 50% by weight of the
3 compound; and
4 expanded anhydrous sodium perborate.
- 1 2. The effervescent compound of claim 1, further including an effervescent system in
2 an amount of up to approximately 50% by weight of the compound.
- 1 3. The compound of claim 2, wherein the effervescent system comprises:
2 an acid and one or more of sodium bicarbonate; potassium bicarbonate;
3 sodium carbonate and potassium carbonate.
- 1 4. The compound of claim 1, wherein the expanded anhydrous sodium perborate is
2 made from the process of dehydration of sodium perborate monohydrate.
- 1 5. The compound of claim 1, wherein the liquid is a solvent.
- 1 6. The compound of claim 5, wherein the solvent comprises a glycol.
- 1 7. The compound of claim 5, wherein the solvent comprises an alcohol.
- 1 8. The compound of claim 5, wherein the solvent comprises a glycol ether.
- 1 9. The compound of claim 8, wherein the solvent comprises 2-butoxyethanol.

- 1 10. The compound of claim 1, further comprising a bleaching compound.
- 1 11. The compound of claim 1, further comprising an anti-redeposition agent.
- 1 12. The compound of claim 1, further comprising a binder.
- 1 13. The compound of claim 1, further comprising a lubricant.
- 1 14. The compound of claim 1, further comprising a color.
- 1 15. The compound of claim 1, further comprising an optical brightener.
- 1 16. The compound of claim 1, further comprising a fragrance.
- 1 17. The compound of claim 1, further comprising a surfactant.
- 1 18. The compound of claim 17, wherein the surfactant is selected from the group
2 consisting of: synthetic anionic surfactants which are generally water-soluble; alkali
3 metal salts of organic sulfates and sulfonates; non-ionic surfactants which are generally
4 the reaction products of alkylene oxide with alkyl phenol or primary or secondary
5 alcohols; amine oxides; phosphine oxides; dialkyl sulphoxides; amphoteric surfactants;
6 zwitterionic surfactants; and soaps.

1 19. A method for making an effervescent compound comprising the steps of:
2 providing a liquid ingredient in an amount up to approximately 50% by weight of
3 the compound;
4 providing a liquid ingredient;
5 providing a carrier for the liquid ingredient;
6 mixing the liquid ingredient with the carrier for the liquid ingredient, thereby
7 producing a free-flowing effervescent compound.

1 20. The method of claim 19, wherein the step of providing a liquid ingredient
2 comprises:
3 providing a solvent that is both hydrophilic and has low solubility with effervescent
4 ingredients in an amount up to approximately 50% by weight of the compound;
5 providing a slow dissolving ingredient;
6 mixing the solvent with the slow dissolving ingredient to form a liquid ingredient
7 mixture.

1 21. The method of claim 20, wherein the step of providing a slow dissolving
2 ingredient comprises providing a slow dissolving ingredient comprising a liquid
3 ingredient having a boiling point lower than the solvent, and
4 further comprising the step of distilling the liquid ingredient mixture to remove the
5 liquid ingredient having a boiling point lower than the solvent.

1 22. The method of claim 19, further comprising the steps of:
2 compressing the effervescent compound; and
3 forming granules of the effervescent compound.

1 23. The method of claim 19, further comprising the steps of:
2 compressing the effervescent compound; and
3 forming a tablet from the effervescent compound.

1 24. The method of claim 19, wherein step of providing a liquid ingredient comprises
2 providing a solvent.
3

4 25. The method of claim 24, wherein step of providing a solvent comprises providing
5 a glycol ether.

1 26. The method of claim 25, wherein the step of providing a glycol ether comprises
2 providing 2-butoxyethanol.

1 27. The method of claim 24, wherein the step of providing a solvent comprises
2 providing an alcohol.

1 28. The method of claim 24, wherein the step of providing a solvent comprises
2 providing an glycol.

1 29. The method of claim 19, further comprising the step of providing an effervescent
2 system.

1 30. The method of claim 29, further comprising the step of mixing the effervescent
2 system with the free flowing powder resulting after the step of mixing the liquid
3 ingredient mixture with the carrier for the liquid ingredient mixture.

1 31. The method of claim 29, wherein the step of providing an effervescent system
2 comprises providing expanded anhydrous sodium perborate.

1 32. The method of claim 29, wherein the step of providing an effervescent system
2 comprises providing an acid and one or more of sodium bicarbonate, sodium carbonate,
3 potassium bicarbonate and potassium carbonate.

1 33. The method of claim 19, wherein the step of providing a carrier for the liquid
2 ingredients comprises the step of providing expanded anhydrous sodium perborate.

33 1 34. The method of claim 19, wherein the step of providing a carrier for the liquid
2 ingredients comprises the step of providing expanded anhydrous sodium perborate
3 produced from the process of dehydration of sodium perborate monohydrate.

- 1 35. A detergent comprising:
2 a liquid ingredient in an amount of up to approximately 50% by weight of the compound;
3 and
4 expanded anhydrous sodium perborate.

35 1 36. The detergent of claim ~~35~~³⁴, wherein the detergent is a laundry detergent.

36 1 37. The detergent of claim ~~35~~³⁴, wherein the detergent is granular.

37 1 38. The detergent of claim ~~35~~³⁴, wherein the detergent is a tablet.

- 1 39. A carpet cleaner comprising:
2 a liquid ingredient in an amount of up to approximately 50% by weight of the
3 compound; and
4 expanded anhydrous sodium perborate.

1 40. The carpet cleaner of claim ~~39~~³⁸, wherein the carpet cleaner is granular.

1 41. The carpet cleaner of claim ~~39~~³⁸, wherein the carpet cleaner is a tablet.

1 42. The carpet cleaner of claim ~~39~~³⁸, wherein the carpet cleaner is between
2 approximately 25 and approximately 100 grams, and wherein the carpet cleaner further
3 comprises approximately one gallon of water, to form a carpet cleaning solution.

- 1 43. An all-purpose cleaner comprising:
 2 a liquid ingredient in an amount of up to approximately 50% by weight of the
 3 compound; and
 4 expanded anhydrous sodium perborate.

43 1 44. The all-purpose cleaner of claim 43, wherein the all-purpose cleaner is granular.

44 1 45. The all-purpose cleaner of claim 43, wherein the all-purpose cleaner is a tablet.

45 1 46. The all-purpose cleaner of claim 43, wherein the all-purpose cleaner is between
 2 approximately 10 and approximately 40 grams, and wherein the all-purpose cleaner
 3 further comprises approximately 1 liter of water, to form an all-purpose cleaning solution.

- 1 47. A glass cleaner comprising:
2 a liquid ingredient in an amount of up to approximately 50% by weight of the
3 compound; and
4 expanded anhydrous sodium perborate.

47 1 48. The glass cleaner of claim ~~47~~⁴⁶, wherein the glass cleaner is granular.

48 1 49. The glass cleaner of claim ~~47~~⁴⁶, wherein the glass cleaner is a tablet.

49 1 50. The glass cleaner of claim ~~47~~⁴⁶, wherein the glass cleaner is between approximately
2 seven and approximately 30 grams, and wherein the glass cleaner further comprises
3 approximately one liter of water, to form a glass cleaning solution.